

that when the variable reflectivity mirror and mirror 280 are in place in the case, the first surfaces of the mirrors are coplanar. These first surfaces may be contiguous or they may be separated by a thin additional wall that may be molded into case 290. Thus, a variable reflectivity mirror and a blindzone viewing mirror are combined to produce a mirror with a flat front face. This same type of structure may be used to combine an ordinary plane non-dimming mirror and a second surface plano-concave blindzone viewing mirror to also have a flat front face.

If any of the mirrors shown which utilize a second surface blindzone viewing mirror are to be used in conjunction with a passenger's side mirror, the first surface of the blindzone viewing mirror must be changed to a spherical surface to match the curvature of the main viewing mirror.

The invention in its broader aspects is not limited to the specific details shown and described, and departures may be made from such details without departing from the principles of the invention and without sacrificing its advantages. For example, the present invention can be applied in other applications such as heavy off-road vehicles and the like where a clear unobstructed wide field of view is required for safe operation, and yet the size of the mirror must be limited.

What is claimed is:

1. A mirror adapted for automotive rearview application comprising a main viewing mirror and an auxiliary mirror, said auxiliary mirror comprising a thin planar array of reflecting

facets simulating a convex mirror having a characteristic magnification less than that of said main viewing mirror, said auxiliary mirror being shaped and positioned for viewing primarily a vehicle in the vehicle blindzone, said main viewing mirror having a first surface and a second surface, said second surface incorporating a recess in which said thin discrete mirror is adhered such that said thin discrete mirror is flush with the second surface of said front plate.

2. The mirror of claim 1, wherein said auxiliary mirror is located generally in an upper and outer quadrant of said mirror.

3. A mirror adapted for automotive rearview application comprising a main viewing mirror and an auxiliary mirror, said auxiliary mirror having a characteristic magnification less than that of said main viewing mirror, said auxiliary mirror being shaped and positioned for viewing primarily a vehicle in the vehicle blindzone, said mirror having means for selectively varying the intensity of the reflection from at least a portion of said mirror.

4. The mirror of claim 3, wherein said auxiliary mirror is located generally in an upper and outer quadrant of said mirror.

5. A mirror adapted for automotive rearview application comprising a main viewing mirror and an auxiliary mirror, said auxiliary mirror defining a reflective surface comprised of a planar array of reflecting facets simulating a convex mirror and having a characteristic magnification less than that of said main viewing mirror, said auxiliary mirror being shaped

and positioned for viewing primarily a vehicle in the vehicle blindzone, said mirror having means for selectively varying the intensity of the reflection from at least a portion of said mirror, and said means for selectively varying the intensity of the reflection comprising an electrically modifiable medium intermediate a transparent front plate and a rear plate such that the intensity of the reflection from said mirror varies in response to an electrical signal applied to conductive coatings on said front plate and said rear plate.

6. The mirror of claim 5, wherein said planar array of reflecting facets is defined by the second surface of said front plate.

7. The mirror of claim 5, wherein said planar array of reflecting facets is defined by the first surface of said rear plate.

8. The mirror of claim 5, wherein said planar array of reflecting facets is defined by the second surface of said rear plate.

9. The mirror of claim 5, wherein said planar array of reflecting facets comprises a discrete second surface mirror, and the first surface of said discrete second surface mirror is adhered to the second surface of said front plate.

10. The mirror of claim 5, wherein said planar array of reflecting facets comprises a thin discrete mirror, and the second surface of said front plate incorporates a recess in which said

thin discrete mirror is adhered such that the second surface of said thin discrete mirror is flush with the second surface of said front plate.

11. The mirror of claim 5, wherein said planar array of reflecting facets is a discrete second surface mirror adhered to the first surface of said second plate and the first surface of said discrete second surface mirror is coplanar with the first surface of said front plate.

12. The mirror of claim 5, wherein said planar array of reflecting facets comprises a thin discrete mirror, and the first surface of said rear plate incorporates a recess in which said thin discrete mirror is adhered such that the first surface of said thin discrete mirror is approximately flush with the first surface of said rear plate.

13. The mirror of claim 5, wherein said planar array of reflecting facets comprises a discrete second surface mirror adhered to the second surface of said rear plate.

14. The mirror of claim 5, wherein said planar array of reflecting facets comprises a discrete first surface mirror adhered to the second surface of said rear plate.

15. The mirror of claim 5, wherein said electrically conductive coating is selectively deposited to avoid changing the intensity of the reflected light from said planar array of reflecting facets.

16. A mirror adapted for automotive rearview application comprising a main viewing mirror and an auxiliary mirror, said auxiliary mirror defining a transparent solid element having a first surface and a concave reflective second surface appearing as a segment of a convex mirror when viewed from the first surface and having a characteristic magnification less than that of said main viewing mirror, said auxiliary mirror being shaped and positioned for viewing primarily a vehicle in the vehicle blindzone, and said mirror having means for selectively varying the intensity of the reflection from at least a portion of said mirror.

17. The mirror of claim 16, wherein said auxiliary mirror is located generally in the upper and outer quadrant of said mirror.

18. The mirror of claim 16, wherein said main viewing mirror and said auxiliary mirror are both retained in a retaining frame such that the first surface of said auxiliary mirror is retained coplanar with the first surface of said front plate.

19. The mirror of claim 16, wherein the first surface of said main viewing mirror and the first surface of said auxiliary mirror both have the same radius of curvature and are retained in a retaining frame such that the first surface of said auxiliary mirror is tangent to the first surface of said main viewing mirror

20. A mirror adapted for automotive rearview application comprising a main viewing mirror and an auxiliary mirror, said auxiliary mirror defining a transparent solid element having a first

surface and a concave reflective second surface appearing as a segment of convex mirror when viewed from the first surface and having a characteristic magnification less than that of said main viewing mirror, said auxiliary mirror being shaped and positioned for viewing primarily a vehicle in the vehicle blindzone, said mirror having means for selectively varying the intensity of the reflection from at least a portion of said mirror, and said means for selectively varying the intensity of the reflection is comprised of an electrically modifiable medium intermediate a transparent front plate and a rear plate such that the intensity of the reflection from said mirror varies in response to an electrical signal applied to electrically conductive coatings on said front plate and said rear plate.

21. The mirror of claim 20, wherein the first surface of said auxiliary mirror is adhered to the second surface of said front plate.

22. The mirror of claim 20, wherein the first surface of said auxiliary mirror segment is adhered to the second surface of said rear plate.

23. The mirror of claim 20, wherein said electrically conductive coating is selectively deposited to avoid changing the intensity of the reflected light from said auxiliary mirror.

24. A mirror adapted for automotive rearview application comprising a main viewing mirror and an auxiliary blindzone viewing mirror having a magnification less than that of said main viewing mirror wherein said auxiliary blindzone viewing mirror is located at an outer end of

said mirror, said auxiliary blindzone viewing mirror being comprised of a planar array of reflecting facets.

25. The mirror of claim 24, wherein said planar array of reflecting facets simulates a convex mirror.

26. The mirror of claim 24, wherein said planar array of reflecting facets simulates an aspheric convex mirror.

27. A mirror adapted for automotive rearview application comprising a main viewing mirror and an auxiliary mirror, said auxiliary mirror defining a transparent solid element having a first surface and a concave reflective second surface appearing as a segment of a convex mirror when viewed from the first surface and having a characteristic magnification less than that of said main viewing mirror, said auxiliary mirror being shaped and positioned for viewing primarily a vehicle in the vehicle blindzone, and said main viewing mirror and said auxiliary mirror are both retained in a retaining frame such that the first surface of said auxiliary mirror is retained tangent with the first surface of said main viewing mirror.

28. A mirror adapted for automotive rearview application comprising a first exterior viewing portion characterized by a first reflectivity characteristic and a second exterior viewing surface portion characterized by a second reflectivity characteristic.

29. The mirror of claim 28 wherein said viewing surface portions have different magnification characteristics.

30. The mirror of claim 28, wherein said first reflectivity characteristic is relatively fixed and said second reflectivity characteristic is selectively variable.

31. The mirror of claim 28, wherein both of said reflectivity characteristics are variable, independently of one another.